

ABSTRACT

The present invention relates to a cell division-visualized cell capable of visualizing cell division through incorporating fluorescent polypeptides into the cell, ~~and a method for producing such a cell of the production of the same, and a method of the visualization of cell division, a method of the evaluation of an influence upon cell division and a method of the screening using the same.~~ The ~~In the present invention,~~ state of cell division is observed through visualizing cell division by (1) obtaining a fusion gene by allowing fusion of a gene of a polypeptide that constitutes a cell structure which reflects the situation of cell division and a gene of a fluorescent polypeptide, then (2) introducing three or more kinds of the aforementioned fusion genes of which fluorescent polypeptide being the different kind into a host cell to obtain a cell division-visualized cell, and thereafter (3) allowing expression of the aforementioned fluorescent polypeptides to detect fluorescence derived from the aforementioned fluorescent polypeptides during cell division of the cell division-visualized cell in a time dependent manner. Further, by concurrently culturing a subject substance and the cell division-visualized cell of the invention, a subject substance that exerts an influence upon cell division can be selected.